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Paul & Paul 2900 Two Thousand Market Street Philadelphia, PA 19103				
			EXAMINER CADUGAN, ERICA E	
			ART UNIT 3722	PAPER NUMBER
			MAIL DATE 02/05/2008	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/541,430

Applicant(s)

OTA, HIDENARI

Examiner

Erica E. Cadugan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11/20/07 & 8/13/07.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) 3 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 4-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 8/13/07.

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

#### ***Election/Restrictions***

2. Claim 3 is withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on November 20, 2007.

Applicant's election with traverse of the species of Figure 13 in the reply filed on November 20, 2007 is acknowledged.

Applicant has made a number of assertions re the traversal of the election of species requirement. Applicant's arguments are not persuasive.

Firstly, Applicant asserts that "[T]he Examiner failed to identify a sub-class distinction which would require separate searches."

However, it is noted that while such provision of such a sub-class distinction would prove that there was a burden to examining all the species, the provision of such a sub-class distinction is not required to show that the examination of multiple species would be burdensome. It is noted that Examiner noted that

There is an examination and search burden for these patentably distinct species due to their mutually exclusive characteristics. The species require a different field of search (e.g., searching different classes/subclasses or electronic resources, or employing different search queries); and/or the prior art applicable to one species would not likely be applicable to another species; and/or the species are likely to raise different non-prior art issues under 35 U.S.C. 101 and/or 35 U.S.C. 112, first paragraph.

In other words, firstly, the examination of the plurality of species do indeed require a more burdensome search, at the very least, by necessitating different text searches. Secondly, the

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burden of examination of the plurality of species is not limited to there being a burdensome search, as each species requires a separate evaluation of whether they meet 35 USC 112 and 35 USC 101, and there is also a great likelihood of different prior art being applicable to the different species, which generates a further burden by 1) requiring the evaluation of the claims to the different species with respect to different types of pieces of prior art and 2) potentially drafting different art rejections to cover the various species.

As properly noted by Applicant, should a generic claim be allowed, applicant will be entitled to consideration of claims to additional species which depend from or otherwise include all the limitations of an allowable generic claim, as provided by 37 CFR 1.141.

The requirement is still deemed proper and is therefore made FINAL.

***Claim Rejections - 35 USC § 112***

3. Claims 1-2, 4-6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, line 4 of the claim, it is unclear as set forth in the claim (via the use of the indefinite article "a") whether "a table" is intended to be different from the "table" previously set forth in line 2 of the claim. If, as it appears, they are intended to be the same table, Examiner suggests changing "a table" in line 4 to --the table-- or --said table--.

In claim 1, line 4, it is unclear as set forth in the claim (via the use of the indefinite article "a") whether "a pallet-mounting plate" is intended to be different from the "a pallet-mounting plate" previously set forth in line 2 of the claim. If, as it appears, they are intended to be the

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same pallet-mounting plate, Examiner suggests changing “a pallet-mounting plate” in line 4 to --the pallet-mounting plate -- or --said pallet-mounting plate --.

There are several other positively recited limitations that lack sufficient antecedent bases in the claims. A few examples of this are: “the pallet” in at least claim 4, penultimate line; “said at least one the pallet stocker” in claim 4, lines 4-5. This is not meant to be an all-inclusive list of such occurrences. Applicant is required to review the claims and correct any other such occurrences of limitations lacking sufficient antecedent basis. It is specifically noted that the claims are inconsistent in the manner in which they refer to the pallet or pallets, leading to antecedent basis issues, for which an example was provided in the office action of 3/16/07. For example, claim 1 sets forth in line 2 plural “pallets”, and there are several instances where "a pallet" is referred to, or wherein "the pallet" or "said pallet" is referred to, rendering it unclear in many cases which of the plurality of pallets are being referenced.

In claim 5, if the plurality of pallet stockers in line 3 are intended to be a subset of the previously claimed “at least one pallet stocker”, Examiner suggests changing “a plurality of pallet stockers” to --a plurality of the pallet stockers-- for clarity.

#### ***Terminal Disclaimer***

4. The terminal disclaimer filed on November 20, 2007 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of application serial no. 10/544,192 has been reviewed and is accepted. The terminal disclaimer has been recorded.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(f) he did not himself invent the subject matter sought to be patented.

6. Claims 1-2 are rejected under 35 U.S.C. 102(f) because the applicant did not invent the claimed subject matter. Note that U.S. Patent Application Publication 2006/0130311 to Kikuchi (having no common inventor with the present application, but having a common assignee), which is the published version of the aforementioned (in the double patenting rejection above) 10/544,192 application, teaches every limitation of each of the present claims. See at least Figures 1-9 of the published Kikuchi application, again noting that the Kikuchi application teaches that the pallet changer is used with a machine tool having a horizontal spindle.

Relating this to the present claim limitation “a machine tool facility”, it is noted that the limitation “a machine tool facility” is a broad limitation and doesn’t impart any specific structure to such a “machine tool facility” beyond the fact that it is a facility having a machine tool.

Kikuchi explicitly teaches that the pallet changer is used with a machine tool, and thus teaches the claimed “machine tool facility”, as wherever the machine tool taught by Kikuchi is located is inherently a facility having that machine tool and is thus a “machine tool facility” as broadly claimed.

7. Claims 1-2 and 4-6, as best understood in light of the above rejections under 35 USC 112, are rejected under 35 U.S.C. 102(b) as being anticipated by WO 02/00388 to Geiger et al.

WO '388 is not in the English language. However, U.S. Pat. No. 6,826,821 to Geiger et al. is in the same patent family, and is being relied upon as an English equivalent to the WO '388 reference. Thus, all references to column and line numbers herein are with respect to the '821 patent.

Geiger teaches a machine tool system/"facility" including a plurality of machine tools 36 (36a-36f) laid out in various configurations (see Figures 4 and 14, for example; Figure 1 shows a detail of an individual machine tool 36). Note that Geiger teaches a machine tool having a horizontal main spindle 10 having a tool 16 mounted at a front end thereof, and "table" or "pallet-mounting plate" 26/29 is mounted "facing" the front surface of the spindle 10 (such that a vertical surface of 29 is perpendicular to the horizontal spindle axis as viewed in at least Figure 7), and detachably mounts a "pallet" 31 which has a vertical surface to/on which a workpiece 15 is affixed (see Figures 1, 7, noting that Figure 7 shows the table/pallet-mounting plate 26/29 positioned facing the spindle 10, noting also that 26 is a turntable device for rotating member 29 about a vertical axis.

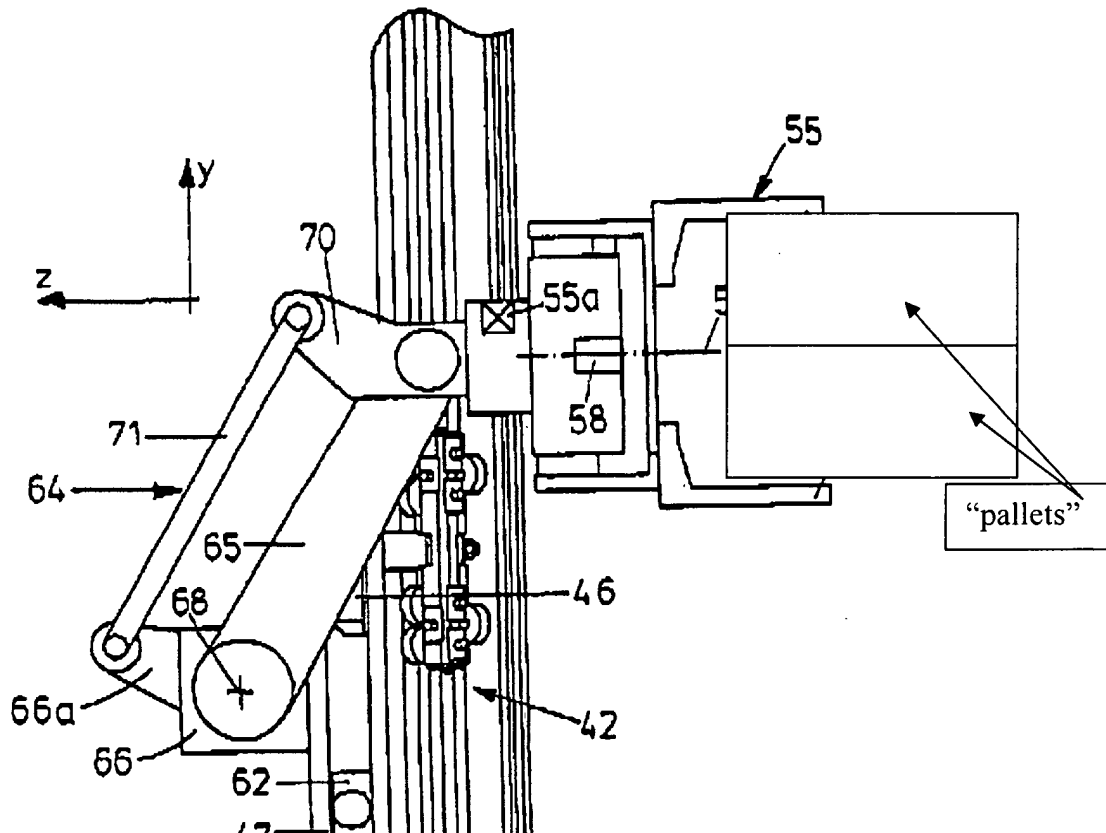
Additionally, note that Geiger teaches various embodiments of a supply and take-down equipment arrangement or "pallet exchanger" 41, 61, 72 (see Figures 1 and 8-14) which are used to deliver a pallet 31 to or remove a pallet 31 from a desired machine tool 36a-f (see especially figures 4 and 14), and which pallet exchangers travel along a "track" 38 from one machine tool to another, and back and forth from a "pallet stocker" area 59/60, see Figures 4 and 14, for example, also col. 5, lines 7-21, for example. For example, "pallet exchanger" 61 is shown in Figures 8-12, and has a base, such as, for example, element 42 (other elements could likewise or alternatively be considered a "base" as broadly claimed), a "pallet support member" including,

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for example, at least element 55 (see Figures 9-12) which “rotates” about vertical axis 68 “in an indexing manner” (see col. 6, lines 2-26, for example, and especially note the pivoting or rotating motion as illustrated in Figures 10-12, which illustrate the rotation movement of 55 about the vertical pivot axis 68, described specifically as vertical in col. 6, line 11). Further note that the “pallet support member”, which includes at least element 55, includes “at least two vertical pallet-mounting surfaces”, such as the vertical pallet gripping surfaces on the gripper jaws 56 of element 55 (note that in Figure 9, axis 68 is the vertical rotation axis, and that jaws 56 have pallet gripping surfaces extending into the plane of the paper that are parallel to that axis). It is noted that these vertical pallet gripping surfaces of the gripper jaws 56 grip vertical surfaces of the pallet, and thus are considered at least in that sense to move the pallet “in a vertical state” as broadly claimed.

Regarding the new limitation of claim 1 regarding the pallet support member having at least two vertical pallet-mounting surfaces “on each of which a distinct pallet can be removably mounted”, it is noted that, as broadly claimed, each of the vertical pallet gripping surfaces of the jaws 56 described previously “can” have removably mounted thereon a “distinct pallet”. For example, see the partial reproduction of Figure 9 below, including an approximation of two distinct “pallets” gripped simultaneously between the vertical gripping surfaces of the jaws 56:





Note that since the two indicated vertical pallet gripping surfaces thus have the ability to have a distinct pallet removably mounted thereon, the claim language, as broadly set forth, is met.

Additionally, re the claimed “pallet moving means”, note that the motor 69 and gearbox 66 are used to perform the rotation motion of 55 about the vertical axis 68, and are thus considered to be the claimed “pallet-moving means for moving the pallet (31), in a vertical state”, between the table/pallet-mounting plate 26/29 and the “pallet support member” including at least 55 to thereby exchange the pallets (see Figures 8-14 and col. 6, lines 2-26).

Re claim 2, see Figures 4 and 14, noting that the “pallet support member” including, for example, at least element 55, is movable along the track (re claim 6) or conveyor path 38 in a

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horizontal direction perpendicular to the horizontal spindle axis (see also Figure 1, noting the configuration and location of path 38 relative to the horizontal spindle axis) to positions such that it is "arranged in the extension of said table or said pallet mount in the horizontal direction perpendicular to the spindle axis" as claimed.

Additionally, re claim 2, note that the "pallet support member" including, for example, at least element 55, on a side (such as the right side as viewed in Figures 1, 9, and the top side as viewed in Figures 10-12, noting the orientation of 38/39 shown in Figures 9-12) of the pallet support member (55 would be located at the left of Figure 1) where the pallet 31 moves when it is held by 29 (see Figure 1), is able to be arranged "in parallel" to a pallet mounting surface of the table/pallet mount 26/29 (see Figures 1 and 9-14, for example). It is noted that such positioning of the pallet support member is considered to be, as broadly claimed, an "extension" of the table or pallet mounting plate.

Re claim 4, note the use of the "pallet stocker" 59/60 (Figures 4, 14, col. 5, lines 7-21, for example). Note also that as broadly claimed, the pallets 31 are considered to be held on the pallet stocker "in a vertical state" in that the pallets 31 have vertical side surfaces while they are located in the pallet stocker 59/60 as shown in at least Figure 4.

Re claim 4, as noted above, the "table" or "pallet-mounting plate" 26/29 is mounted such that 26 is a turntable device for rotating member 29 about a vertical axis, and thus the vertical pallet-mounting surface of member 29 can be rotated about that vertical axis to a position such that it is at a right angle with the horizontal direction of "track" 38. Further note that the "pallet support member" including at least element 55 must inherently be positioned proximal to and at least in some sense "aligned with" the "pallet stocker" 59/60 in order to pick up a pallet

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therefrom. Also, it is again noted that as broadly claimed, the pallets 31 are considered to be held on the pallet stocker “in a vertical state” in that the pallets 31 have vertical side surfaces while they are located in the pallet stocker 59/60 as shown in at least Figure 4.

Re claim 5, note that plural machine tools 36a-f are shown on one side of track 38 in Figure 4, and that plural machine tools 36a-36f are shown on “both” sides of track 38 in Figure 14. Re the plural pallet stockers, it is noted as broadly claimed, both of elements 59 and 60 can each individually be considered to form a separate “pallet stocker”.

Re claim 6, note the use of the previously-described track 38.

#### ***Response to Arguments***

8. Applicant's arguments filed August 13, 2007 have been fully considered but they are not persuasive.

The previous double-patenting rejection has been withdrawn in light of the approved terminal disclaimer filed November 2007, mentioned in the above section with the heading “Terminal Disclaimer”.

However, Applicant further sets forth that the 102(f) rejection based on US 2006/0130311 to Kikuchi “should now be withdrawn” because “[S]ubject matter developed by another, which qualifies as prior art under one or more subsections (e), (f), and (g) of Section 102 of 35 United States Code, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the claimed invention was made, owned by the same person or subject to an obligation of assignment to the same person”.

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However, firstly, Examiner notes that Applicant has not provided any sort of statement or evidence that at the time the claimed invention was made, the two were owned by the same entity or subject to an obligation of assignment to the same entity.

Secondly, Examiner notes that even if such a statement or evidence was submitted, such would not be sufficient to preclude a rejection under 35 USC 102(f). Such a statement would only preclude a rejection under 35 USC 103(c) which was based on art that only qualified as prior art under one or more of subsections (e), (f), and (g) of section 102. See at least MPEP section 706.02(l)(1), for example, which teaches:

35 USC 103(c) only applies to prior art usable in an obviousness rejection under 35 USC 103. **Subject matter that qualifies as anticipatory prior art under 35 USC 102 is not affected, and may still be used to reject claims as being anticipated.**

Additionally, Applicant has traversed the art rejection of the claims based on Geiger et al WO 02/00388 (corresponding to US 6,816,821) indicating that the following limitation of claim 1 is not taught or suggested by the relied upon reference:

*"a pallet support member provided on the base so as to rotate about a vertical axis thereof in an indexing manner, having at least two vertical pallet-mounting surfaces on each of which a distinct pallet can be removably mounted".*

It is noted that the Geiger reference teaches the pallet support member provided on the base so as to rotate about a vertical axis thereof in an indexing manner, having two vertical pallet mounting surfaces, as described in the both the above and previous rejection(s) based on the Geiger reference. It is further noted that each such vertical surface is capable of having a distinct pallet removably mounted thereon, as described in detail in the above rejection based on the Geiger reference, thus meeting the broad limitation "on each of which a distinct pallet *can be*

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removably mounted". See the above explanation within the body of the rejection based on the Geiger reference.

***Conclusion***

9. Any prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

10. Applicant's amendment necessitated any new ground(s) of rejection (such as any new issues with respect to 35 USC 112, second paragraph, for example) presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

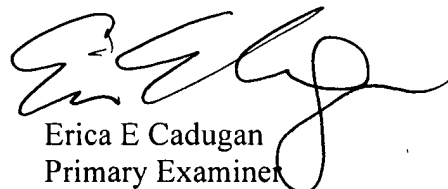
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Erica E. Cadugan whose telephone number is (571) 272-4474. The examiner can normally be reached on M-F, 6:30 a.m. to 4:00 p.m., alternate Fridays off.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Monica S. Carter can be reached on (571) 272-4475. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Erica E Cadugan  
Primary Examiner  
Art Unit 3722

eec  
January 30, 2008